

### **REMARKS**

Claims 1-7 are pending in the application. The Examiner is respectfully requested to reconsider and withdraw the rejection in view of the amendments and remarks contained herein.

### **REJECTION UNDER 35 U.S.C. § 112**

Claims 2 and 7 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. This rejection is respectfully traversed.

At the outset, Applicant notes that the Office Action states that claims 2 and 7 are rejected under 35 U.S.C. § 112, second paragraph, however, the remarks in the Office Action refer to claims 4 and 7. Accordingly, it appears that it was intended that claims 4 and 7 be rejected under 35 U.S.C. § 112, second paragraph. Applicant notes that claims 4 and 7 have each been amended to address the Examiner's comments regarding these claims. Therefore, reconsideration and withdrawal of these rejections are respectfully requested.

### **REJECTION UNDER 35 U.S.C. § 102**

Claims 1-7 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Jackowski et al (U.S. Pat. No. 4448426). This rejection is respectfully traversed.

Claims 1-5 and 7 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Romero et al (U.S. Pat. No. 5186472). This rejection is respectfully traversed.

Claim 1 currently requires:

a sleeve including a first axially extending ring portion covered with an elastomeric seal layer adapted to mount rotationally fixed to the first member, a radially extending portion extending radially outward from an end of said first axially extending ring portion and a second axially extending ring portion extending axially from a radially outer end of said radially extending portion;  
a retainer having a first axially extending portion slidably mounted to the second axially extending ring portion of said sleeve in a radial interference fit and having a second portion adapted to mount to the second member, said first axially extending portion having a smaller diameter than said second portion of said retainer; and  
a seal mounted to said retainer and engaging said first axially extending ring portion of said sleeve;  
wherein said retainer is disengaged from said sleeve during assembly of said sleeve on to said first member.

Applicant notes that the sleeve 108 of Jackowski does not disclose a "second axially extending ring portion extending axially from a radially outer end of said radially extending portion," as claimed. Furthermore, Jackowski fails to disclose a retainer having a first axially extending portion slidably mounted to the second axially extending ring portion of said sleeve in a radial interference fit, as claimed. Applicant further notes that Romero also fails to disclose "a retainer having a first axially extending portion slidably mounted to the second axially extending ring portion of the sleeve in a radial interference fit," as claimed. Therefore, reconsideration and withdrawal of the rejections of claims 1-5 are respectfully requested.

With regard to claim 6, Applicant notes that this claim includes the limitations of:

assembling a sleeve of the pinion seal to a retainer of the pinion seal with a radial interference fit between cooperating axially extending portions of said sleeve and said retainer, said retainer supporting a seal in engagement with said sleeve;  
assembling the pinion seal to the carrier/bearing cage;  
partially installing the axle companion flange into the sleeve while generating less axial installation force between the axle companion flange

and the sleeve than an axial retention load created by the interference fit between the retainer and the sleeve; and further installing the axle companion flange into the sleeve while preventing further axial movement of the sleeve relative to the companion flange, to thereby overcome the axial retention load and move the sleeve axially relative to the seal and out of radial interference fit with said retainer.

Applicant submits that Jackowski fails to disclose assembling a sleeve of the pinion seal to a retainer of the pinion seal with a radial interference fit between cooperating axially extending portions of the sleeve and the retainer, with the retainer supporting a seal in engagement with the sleeve, as claimed. Jackowski further fails to disclose the step of "partially installing the axle companion flange into the sleeve while generating less axial installation force between the axle companion flange and the sleeve than an axial retention load created by the interference fit between the retainer and the sleeve." Applicants note that there is no basis for asserting that the axial installation force of the shaft 112 being inserted into the sleeve 108 is less than any axial retention load created by an interference fit between the wall surface 166 in FIGS 6 and 8 of Jackowski. The surface contact between the shaft 112 and inner sealing surface 110 is clearly more significant than the thin flap of elastomeric material at 166 in FIGS 6 and 8. Applicants further submit that Jackowski fails to disclose the "further installing" step wherein "further axial movement of the sleeve" is prevented to "move the sleeve axially relative to the seal and out of radial interference fit with said retainer," as claimed. In particular, Jackowski, does not disclose any structure for preventing further axial movement of the sleeve 108 so that the sleeve can move axially relative to the seal and out of radial interference fit with the retainer, as claimed. Therefore, Applicant respectfully requests reconsideration and withdrawal of the rejection of claim 6.

Claim 7 includes the limitations of:

a sleeve adapted to mount rotationally fixed to the first member, said sleeve including an outer surface having a ramp portion disposed between an axially extending forward cylindrical portion and an axially extending rear cylindrical portion, wherein said axially extending forward cylindrical portion has a smaller diameter than said axially extending rear cylindrical portion; and  
a seal supported by a retainer which includes a first axially extending portion which is mounted to an axially extending surface of the sleeve in a radial interference fit and said retainer including a second portion adapted to mount to the second member, said seal including a first seal lip engaging said axially extending forward cylindrical portion and a second seal lip engaging said axially extending rear cylindrical portion.

Applicant submits that Jackowski does not disclose a sleeve with a ramp portion between an axially extending smaller diameter forward cylindrical portion and a larger diameter axially extending rear cylindrical portion, wherein the seal portion includes a first seal lip engaging the smaller diameter forward cylindrical portion and a second seal lip engaging the larger diameter rear cylindrical portion, as claimed.

With regard to Romero, Applicants submit that Romero fails to disclose “a seal supported by a retainer which includes a first axially extending portion which is mounted to an axially extending surface of the sleeve in a radial interference fit.” Therefore, claim 7 should be in condition for allowance.

## **CONCLUSION**

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action and the present application is in condition for allowance. Thus, prompt and

favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

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